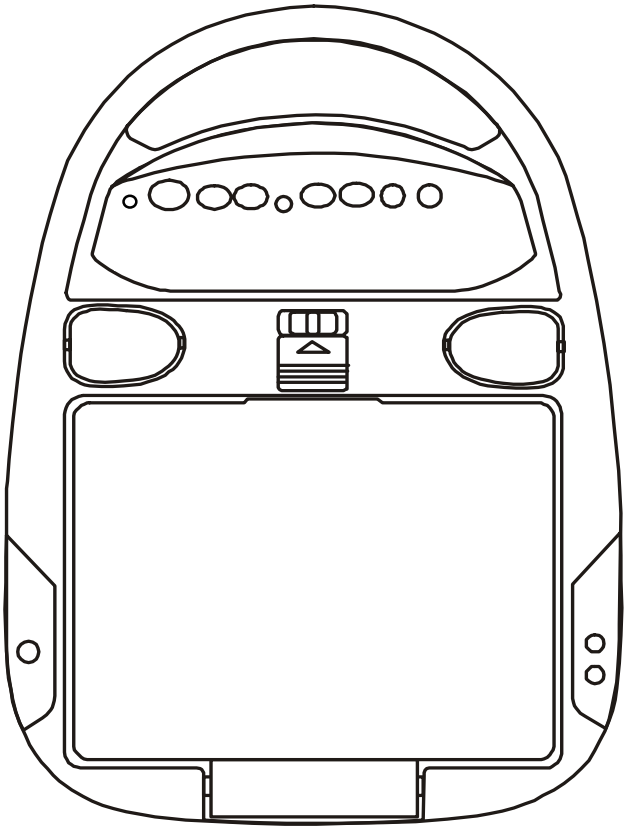
AUDIOVOX®
ELECTRONICS CORP.

VOH703 Drop Down TV / Video Monitor



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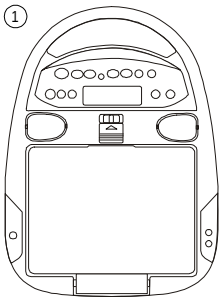
Installation Guide

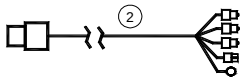
Important Notice

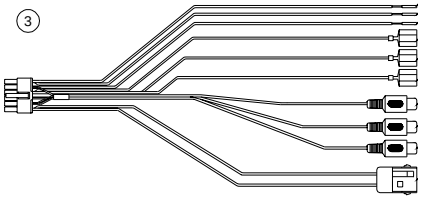
It is unlawful in most jurisdictions for a person to drive a motor vehicle which is equipped with a television viewer or screen that is located in the motor vehicle at any point forward of the back of the driver's seat, or that is visible directly or indirectly to the operator of the motor vehicle.

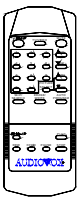
MATERIALS INCLUDED IN THIS PACKAGE:

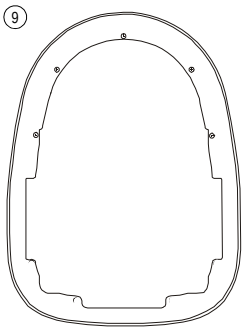
1) VOH703 Video Monitor with TV Tuner (1 pc)
2) Accessory Harness (P/N 8010730) (1 pc)
3) 12 Pin Power / Signal harness (P/N 112B2821) (1 pc)
4) 2 Pin Power Wire Harness with choke (P/N 112B2824) (1 pc)
5) Hardware Package
   - #4 x 1/4" Screws (5 pcs)
   - #8 x 5/8" Self Drilling Screws (4 pcs)
   - #8 Washers (4 pcs)
6) Remote Control (P/N 136B1612) (1pc)
7) Left Protective Cover for IR sensor (P/N 102B3596) (1pc)
8) Right Protective Cover for Headphone Jacks (P/N 102B3597) (1pc)
9) Mini Console (P/N 102D3595) (1pc)











Multimeter (to verify 12 volt DC and continuity: Do not use a test light or logic probe)
Marker pen – to mark headliner
Scribe (to mark trim ring if used)
Misc. electrical connectors (to connect to vehicle power source). Requirements will vary from vehicle to vehicle)
Video tape (to verify system operation after installation)

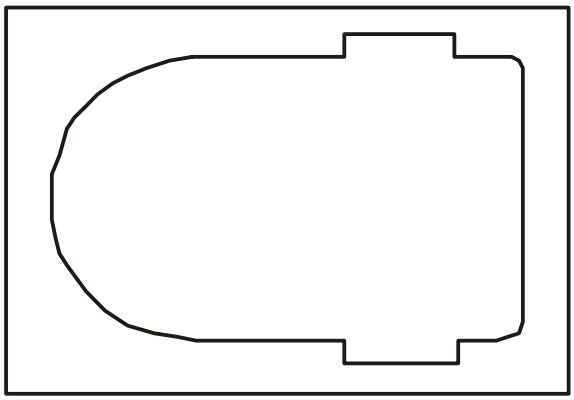
GENERAL INSTALLATION APPROACH:

1) Decide upon system configuration and options that will be installed (i.e.: what components, VCP, Tuner, RF Modulator/external amp, remote headphones, 2nd VCP, etc.).
2) Review all manuals to become familiar with electrical requirements and hook ups.
3) Decide upon mounting locations of all components and method of mounting.
4) Prep the vehicle by removing any interior trim necessary to gain access to vehicle's wiring as well as all areas where interconnecting wire harnesses will need to be located. If any access holes need to be cut into the vehicle (headliner, other trim components etc.), this should be done now as well. (Refer to Page 3).
5) Route the wiring harnesses throughout the vehicle as necessary. (Refer to the Wiring Diagrams on pages 6 and 7 of this manual as well as the wiring instructions for the individual components and accessory options being installed). Be sure that all wiring is protected from sharp edges and is routed in such a manner that it will not be pinched when all components and interior trim are fully installed. Be sure to leave enough slack in the wiring at each component to allow working room.
6) Remove all A/V system components from their packaging and place them loosely in the vehicle at their respective locations.
7) Connect all components together (electrically) and verify proper operation of all system functions. Note: This is best done BEFORE, components have been permanently mounted.
8) After verifying proper operation of the system, proceed to mount of each component.
9) When all components are mounted, recheck function of entire system again to ensure that no wiring was pinched or connected improperly during final installation.

VEHICLE PREPARATION:

1) Locate an accessory Power source (+12v when key is in the ACC. and run positions, and 0v when key is off) and a Ground source. Generally, these wires can be found at the ignition switch or fuse-box.
2) The mounting method and location will vary from vehicle to vehicle, so this manual will only focus on the installation of the video monitor and related console accessories.
3) Generally, the best location for the video monitor is where the vehicle's factory dome light is installed. The monitor should be located in such a manner that it can be comfortably viewed by rear seat passengers. NEVER INSTALL THE MONITOR IN A PLACE WITHIN THE DRIVER'S VIEW. THIS IS NOT ONLY DANGEROUS, BUT IT IS ALSO ILLEGAL IN MANY STATES.
4) Once the mounting location of the monitor has been determined, there may be additional preparation work necessary, depending on the vehicle structure and installation method. Some of the steps that may be required are:
    A) Removal of the vehicle's dome light
    B) The headliner may need to be trimmed as per the drawing below.
    C) If the mini-console (P/N 102D3595) will be used, it will have to be trimmed to fit the contour of the vehicle's headliner. Refer to the "Mini-Console installation" section late in this manual.

Note:
If your installation will require you to cut out the headliner, the box that this kit came in can be used as a template. You can remove the shelf that the video monitor rests on and trace the opening onto the headliner for cutting



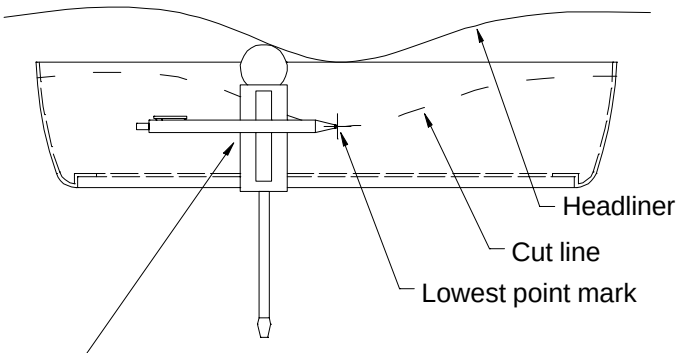
FULL SIZE CONSOLE INSTALLATION

There are several “full size” custom consoles available for selected vehicles. Some of these vehicles are the Chevrolet Suburban, Ford Expedition, and Dodge Durango. These full size consoles incorporate several additional features, and are particularly useful if the vehicle you are installing this system into already has an OEM overhead console in the headliner.
Refer to the installation manual that comes with the console itself for complete installation instructions.

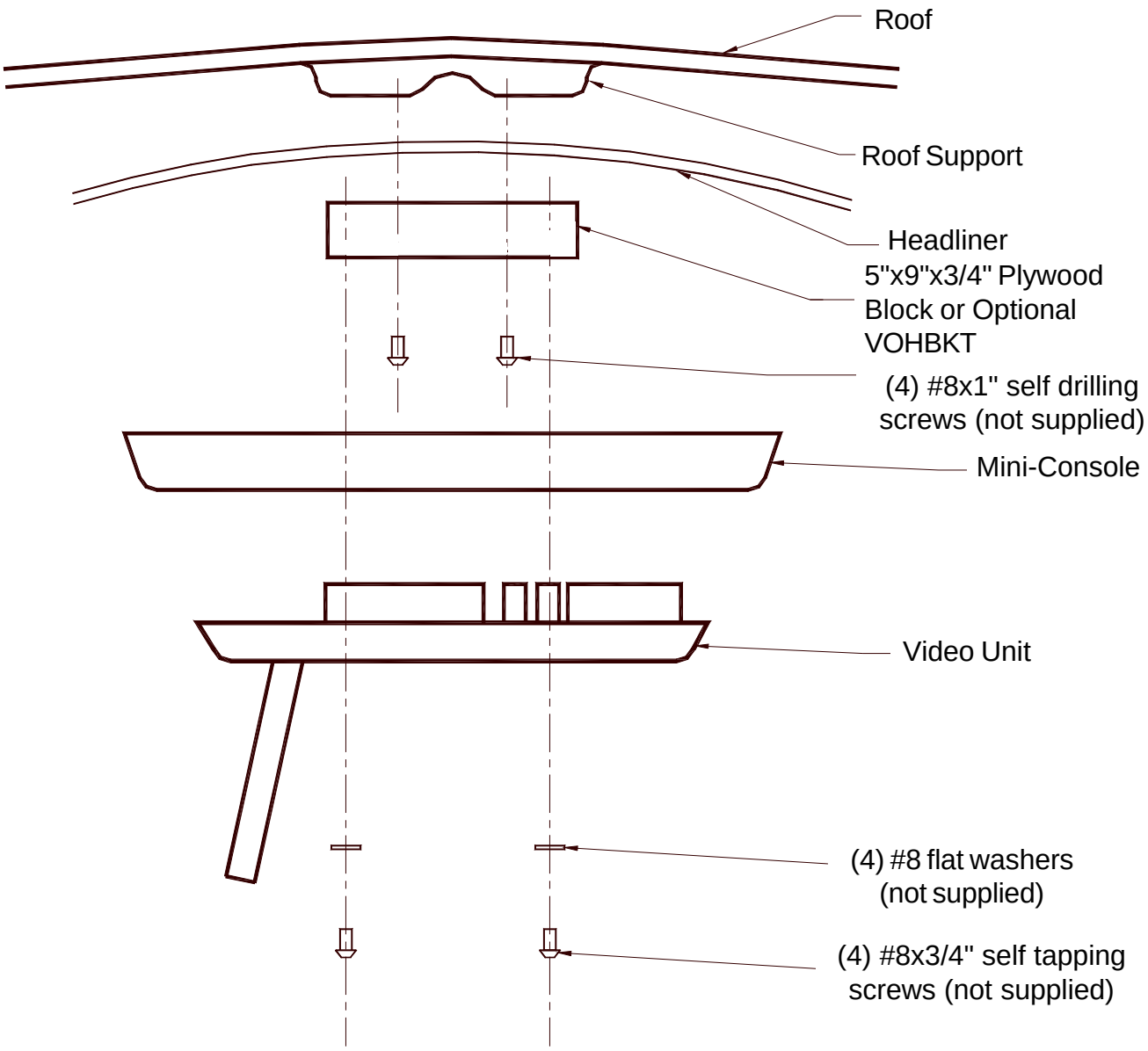
MINI CONSOLE INSTALLATION:

This page only covers special installation considerations for the mini-console installation. If the video monitor is to be installed with a custom full sized overhead console, refer to page 3.
If the video monitor is to be installed in a vehicle with the mini console (P/N 102D3595), this console may need to be trimmed to fit the contour of the vehicle headliner.

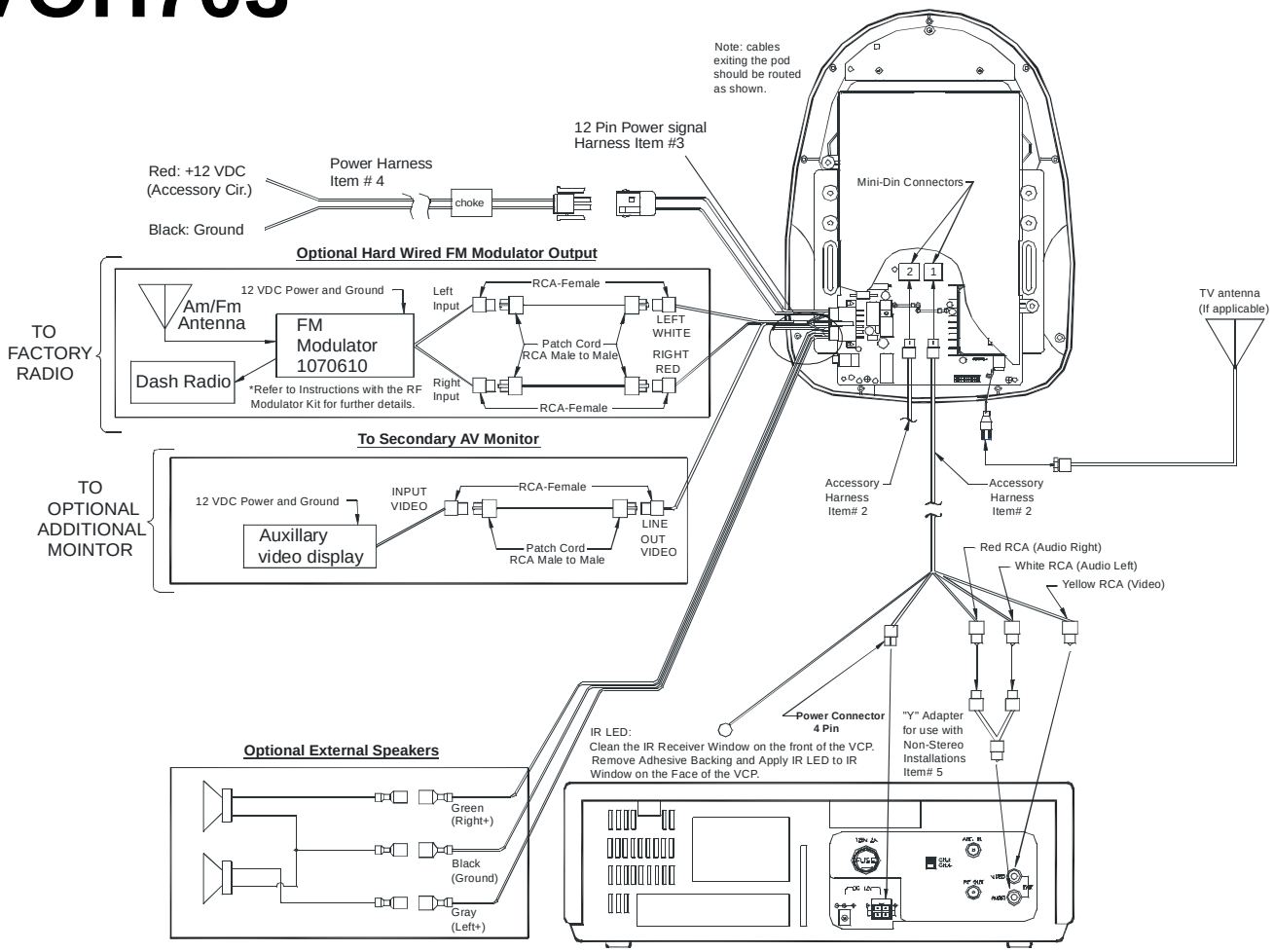
1) In this installation, the video monitor is mounted directly to the overhead cross-member in the roof using the mounting screw bosses. These screw bosses should contact the cross-member directly (i.e.: no gap between the screw boss and the roof structure). Also, be sure that the screws do not pierce the outer roof skin when fully fastened to the cross-member. The mini-console is attached to the video monitor using the perimeter screw bosses. It is important that the screws used in this installation are not overtightened, and that the video monitor and mini-console are mounted in such a way that the assembly does not distort (or bend) when the mounting screws are tightened. An alternate method is to use a piece of plywood (5"x9"x3/4"). First secure the plywood block to the cross-member, then screw the monitor into the plywood. See the drawing on page 5.
2) It is best to mount the video monitor to the roof structure without the mini-console first. There should be a gap between the headliner and the outer flange of the video monitor. The mini-console should be cut to full this gap. Apply masking tape to the outer surface of the mini-console in the areas where the cut will be made.
3) Mark the cut to follow the necessary contour of the roof. The suggested method of marking is as follows:
    - A) First mark the narrowest point of the mini-console on the masking tape. Be careful to consider not only vertical location, but fore-aft location.
    - B) Using the handle of a screwdriver, make a “transfer marking tool”. See diagram below. Place the tool against the roof and the marker against the masking tape on the mini-console. Trace the cut to be made around the entire perimeter of the mini-console.
    - C) Cut the mini-console using a sharp utility knife or shears. Make the cut in several passes over the marked line, each time cutting a little deeper. It is not necessary to cut completely through the plastic, the cut only need be over 50% of the wall thickness of the plastic. By bending the cut back and forth several times, the plastic will break cleanly at the cut.
    - D) Check the fit of the trimmed console and make any minor adjustments necessary.
4) The mini-console can be painted or covered with a material that matches the headliner before assembling the mini-console to video monitor.
5) The finished mini-console should be attached to the video monitor, then attach the assembly to the roof.


Headliner
Cut line
Lowest point mark
Tape marker to screwdriver. Starting at your mark for the lowest point, trace the contour of the roof

MOUNTING THE MINI-CONSOLE



VOH703


Note: cables exiting the pod should be routed as shown.
12 Pin Power signal Harness Item #3
Red: +12 VDC (Accessory Cir.)
Power Harness Item # 4
choke
Black: Ground
Mini-Din Connectors
Optional Hard Wired FM Modulator Output
12 VDC Power and Ground
Am/Fm Antenna
FM Modulator 1070610
Dash Radio
*Refer to Instructions with the RF Modulator Kit for further details.
TO FACTORY RADIO
Left Input
Right Input
RCA-Female
Patch Cord RCA Male to Male
LEFT WHITE
RIGHT RED
TV antenna (If applicable)
To Secondary AV Monitor
TO OPTIONAL ADDITIONAL MOINTOR
12 VDC Power and Ground
Auxillary video display
INPUT VIDEO
LINE OUT VIDEO
Accessory Harness Item# 2
Red RCA (Audio Right)
White RCA (Audio Left)
Yellow RCA (Video)
Power Connector 4 Pin
"Y" Adapter for use with Non-Stereo Installations Item# 5
IR LED:
Clean the IR Receiver Window on the front of the VCP. Remove Adhesive Backing and Apply IR LED to IR Window on the Face of the VCP.
Optional External Speakers
Green (Right+)
Black (Ground)
Gray (Left+)

1) Make the connections to the vehicle for the 12 pin wiring harness.
2) Remove screws on PCB Cover. Open the cover to gain access to Mini-Din Connector on main PCB. (Cover will remain attached to rivet hole).
3) Insert the Circular Mini-Din Connector of the source Component Harness through the wire tie loop on the main PCB and into the Mini-Din Connector on the main PCB.
4) Pull the wire tie loop tight and cut off the excess.
5) Connect the Power Harness to the mating connector on the Video Monitor.
6) Connect the wired RF Modulator and / or the remote headphone jacks to the video monitor if those options are being included.
7) Connect power harness to vehicle's electrical system by tapping into an accessory hot line.
8) Reinstall PCB cover using the 2 screws.
9) Mount and connect the Television antenna.
10) Verify all functions of the System before final mounting of the finished assembly.

Note: A second VCP or other A/V Component can be connected to the video monitor system using a second Source Component Harness (purchased separately, part number: 8010730). This second harness would plug into the second Mini-Din connector on the main PCB as in steps 2 and 3 above.

A/V Source Definitions:

1= TV Tuner

2= VCP (right Mini-Din on main PCB)

3= 2nd VCP (or game or future DVD, etc.…. left Mini-Din)

CONNECTING THE DOME LIGHTS

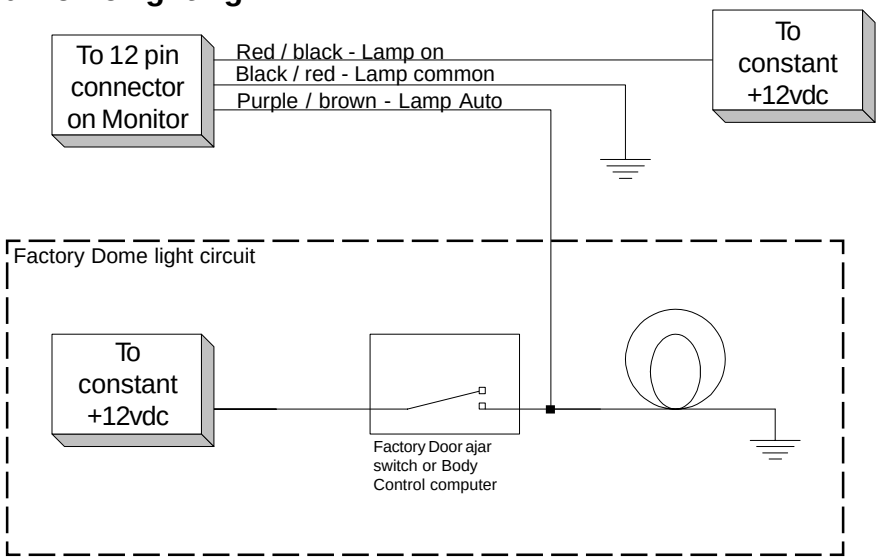
The dome lights in the video monitor require three connections to the vehicle's wiring. There are two common types of dome light circuits used, positive or negative switched. Positive systems supply voltage to the interior lights to turn them on, negative switched systems apply ground to illuminate the bulbs. To determine which system you have you must locate the wires at the dome light. On a positive switched system, with all the doors closed and the lights out, both wires at the dome light will rest at ground. When the light is activated, one of these wires will switch to +12 vdc. This is the vehicle's switching wire. On a negative switched system, with all the doors closed and the lights out, both wires at the dome light will rest at + 12vdc. When the light is activated, one of these wires will switch to ground. This is the switching wire.

For positive systems, connect the purple / brown (Lamp auto) wire to the vehicle's switched wire. Then connect the red / black (lamp on) wire to a fused constant 12 volt source and the black / red (lamp common) wire to a good ground. Positive systems are commonly found on Ford vehicles.

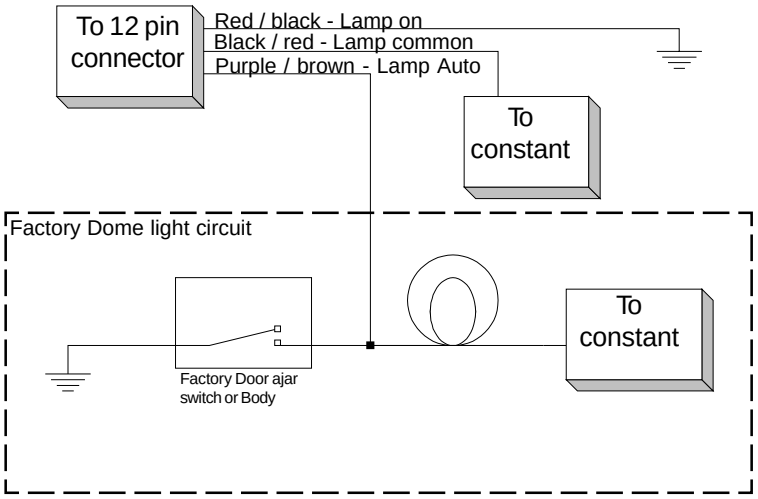
For negative systems, connect the purple / brown (Lamp auto) wire to the vehicle's switched wire. Then connect the red / black (lamp on) wire to a good ground and the black / red (lamp common) wire to fused constant 12 volt source. Negative systems are commonly found on General Motors and import vehicles.

Note:
Some vehicles which incorporate transistorized control of the dome light circuit, such as the 1999 Dodge Caravan, may require that the purple / brown (Lamp auto) wire be connected to the door pin switch wire, as the additional current draw of the Monitor's lights may not be supported by the output of the vehicles body control computer.

Positive Switched Dome lighting


To 12 pin connector on Monitor
Red / black - Lamp on
Black / red - Lamp common
Purple / brown - Lamp Auto
To constant +12vdc
Factory Dome light circuit
To constant +12vdc
Factory Door ajar switch or Body Control computer

Negative Switched Dome lighting


To 12 pin connector
Red / black - Lamp on
Black / red - Lamp common
Purple / brown - Lamp Auto
To constant
Factory Dome light circuit
To constant
Factory Door ajar switch or Body

Troubleshooting:

SYMPTOM:	***REMEDY:***
No power at Video Monitor	-Verify +12 VDC on Red wire at 2 pin Power Harness behind video monitor. Verify ground connection with continuity test from known good ground to black wire at 2 pin Power Harness
Power but no video or sound	-Verify that the correct source is selected (i.e.: 1,2,3 or 4). Verify that the source is on and playing a known good media (such as a videotape). Verify connections at both ends of the source component harness.
Picture, but no sound	-Push and hold the volume up button until sound is heard over headphones. If problem is limited to the dash radio, verify radio is tuned to the correct channel, and that power to the wired RF modulator is on. (Refer to instructions with modulator kit). Otherwise, verify all connections per the wiring diagram on pages 5 and 6.
Static on TV Stations (Tuner Version Only)	-Press Auto Program button. Then press CH up or CH down. Verify antenna mounting and connections to the tuner. Note: Due to the nature of TV signals, vehicle motion, direction the vehicle is facing, distance from the transmitter, nearby surroundings and weather may adversely affect TV reception. These conditions may result in the following: picture roll, "snowy" picture, or momentary loss of color.
No Infrared remote functions for VCP (or other components)	-Check batteries in the hand held remote (not included with this kit). Verify that the IR LED (page 6 Wiring Diagram) is property attached to the sensor window of the VCP (or other component).

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